

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-8. (cancelled)

9. (currently amended) A system as recited by claim ~~8~~26, wherein: said bias means comprises a bias magnet having a top side and a bottom side; said magnetomechanical element comprises a first elongated strip and a second elongated strip, ~~each of said strips being composed of magnetostrictive amorphous metal alloy~~; said first elongated strip is disposed on said top side and said second elongated strip is disposed on said bottom side of said bias magnet; and the planes of said first and second elongated strips are substantially parallel.

10. (cancelled).

11. (currently amended) A system as recited by claim ~~6~~9, wherein each of said strips has substantially the same resonant frequency.

12. (currently amended) A system as recited by claim ~~4~~26, wherein said resonance frequency ranges from about 110 to 250 kHz.

13. (original) A system as recited by claim 12, wherein said resonance frequency ranges from about 120 kHz to 200 kHz

14. (currently amended) A method for detecting a surgical implement left within a patient during surgery in an operating room, comprising the steps of:

- a) attaching a marker to said surgical implement before use during said surgery, said marker comprising a cavity therein and a magnetomechanical element comprising a plurality of elongated strips of magnetostrictive amorphous metal disposed in said cavity in a non-parallel orientation and a bias means for magnetically biasing said magnetomechanical element to arm said element to exhibiting mechanical resonance at a resonant frequency in the presence of an electromagnetic interrogating field, said resonant frequency ranging from about 70 to 300 kHz, whereby said marker is provided with a signal-identifying characteristic;
- b) placing a surgical implement detector proximate said operating room, said detector being adapted to generate said electromagnetic interrogating field and detect said signal-identifying characteristic;
- c) subjecting said patient to said electromagnetic interrogating field generated by said surgical implement detector;
- d) detecting said signal-identifying characteristic; and
- e) activating an indication means in response to the detection of said signal-identifying characteristic indicative of the presence of said implement.

15-16. (cancelled)

- 17. (withdrawn) A method as recited by claim 16, wherein said magnetomechanical element comprises a first elongated strip and a second elongated strip, each strip being composed of magnetostrictive amorphous metal alloy, said first elongated strip is disposed on said top side of said bias magnet and said second side is disposed on said bottom side of said bias magnet, and the planes of said first and second elongated strips are substantially parallel.

18-21. (cancelled)

22. (currently amended) In a surgical implement, the improvement wherein a magnetomechanical marker detectable by an electronic article surveillance system is attached to the implement, the marker comprising:

- a) a magnetomechanical element comprising one or more elongated strips composed of magnetostrictive amorphous metal alloy;
- b) a housing ~~having at least~~ comprising one cavity sized and shaped to accommodate said strips, and said strips being disposed in said one cavity with a non-parallel orientation and able to mechanically vibrate freely therewithin; and
- c) a bias means for magnetically biasing said magnetomechanical element, said magnetomechanical element being armed to resonate at a resonant frequency in the presence of an interrogating electromagnetic field, said resonant frequency ranging from about 70 to 300 kHz.

23. (cancelled)

24. (previously presented) A surgical implement as recited by claim 22, wherein the marker comprises:

- a) a magnetomechanical element comprising a first and a second elongated strip, each strip being composed of magnetostrictive amorphous metal alloy;
- b) a bias magnet magnetically biasing said magnetomechanical element, said bias magnet having a top side and a bottom side;

- c) said first elongated strip being disposed on said top side of said bias magnet and said second elongated strip being disposed on said bottom said of said bias magnet.

25. (cancelled)

26. (new) A surgical implement detection system, comprising:

a) a marker comprising:

i) at least one magnetomechanical element comprising a plurality of elongated strips composed of magnetostrictive amorphous metal alloy and exhibiting magnetomechanical resonance at a resonant frequency ranging from about 70 to 300 kHz and radiating a marker dipole field in response to the incidence thereon of an alternating electromagnetic interrogating field;

ii) a bias means for magnetically biasing and thereby arming said magnetomechanical element to resonate; and

iii) a housing including a cavity enclosing said magnetomechanical element and said bias means, said magnetomechanical element being free to mechanically vibrate in said cavity at said resonant frequency, and said elongated strips having a non-parallel orientation and their centers coincident,

whereby said marker is provided with a signal-identifying characteristic comprising a ring-down of said dipole field;

b) an interrogating means for generating said electromagnetic interrogating field having a preselected interrogating frequency, modulated as a series of pulses and being substantially equal to said resonant frequency;

c) a detecting means for detecting said signal-identifying characteristic; and

d) an indication means activated by said detecting means in response to the detection of said signal-identifying characteristic.